BRUHATH BENGALURU MAHANAGARA PALIKE,DASARAHALLI ZONE

Office of Executive Engineer

SCHEDULE -B

Name Of Work: Providing drinking water works in ward no.15 in Dasarahalli Division

Sl. No	Descrption of Work	Unit	Qty	Sanctioned Rate	
				In Figures (Rs.)	In Wards (Rs.)
	Earthwork excavation for foundation of buildings, water supply, sanitary lines and electrical conduits either in pits or in trenches 1.5m and above in width, in ordinary soil not exceeding 1.5 m. in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50 m. after breaking of clods complete as per specifications	Cum	7.65	188.68	
	Providing and laying in position plain cement concrete of mix 1:4:8 withOPC cement at 180kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @0.57cum machine mixed, concrete laid in layers not, exceeding 15cms, thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications.	Cum	2.07	4976.70	
	Providing and constructing granite / trap / basalt rubble stone masonry in foundation with cement mortar 1:6, stone hammerd dressed in courses not less than 20 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications	Cum	4.82	4058.74	
	Providing and constructing granite / trap / basalt size stone masonry in basement with cement mortar 1:6, edges of stones chistle dressed in courses not less than 15 cms high, bond stones at two m. apart in each course including cost of materials, labour, curing complete as per specifications	Cum	2.69	4814.52	
	Providing and constructing precast concrete solid blocks with compressive strength not les than 35 Kg/sqm with cement mortar 1:4 masonry (quoin, Jamb, closer blocks) with solid concrete blocks of size 40x20x20 cms conforming to I.S: 2185/1965 in superstructure including cost of materials, labour charges, scaffolding, curing complete as per specifications.	Sqm	36.67	999.58	

EXECUTIVE ENGINEER-4
KRIDL, BBMP DIVISON
BENGALURU-560 010

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Providing and laying in position plain cement concrete of mix M20 withOPC cement @ 320kgs. with 20mm and down size graded granite metal coarse aggregates @0.459cum and fine aggregates @0.878cum with superplastesisre @ 1lts conforming to IS9103-1999Reffirmed 2008 machine mixed exceeding 15cms thick, vibrated for all works in foundation plinth and ground floor level for roof slabs, staircase, lintels, retaining walls, return walls, walls(any thickness) including attached plasters, columns, piers, abutments, pillars, posts, struts, buttresses, string or lacing courses, parapets, coping, bed blocks, anchor blocks, plain window cills, fillets etc, including cost of all materials, labour HOM of machinery, curing, complete as per specifications.	Cum	1.09	6083.34	
Providing and removing centering, shuttering, strutting, propping etc., and removal of form work for vertical surface such as walls at any thickness, including attached pilasters, buttresses, plinth and string courses cost of all materials, labour complete as per specificaitons.	Sqm	10.88	301.04	
Filling available excavated earth (excluding rock) in sides of foundations upto plinth in layers not exceeding 20 cms. in depth, compacting each deposited layer by ramming after watering with lead upto 50 m. and lift upto 1.5 m. including cost of all labour complete as per specifications	Cum	3.83	127.20	
Providing and fixing to wall, ceiling and floor galvanised/ mild steel tube 50mm dia nominal bore with fittings, (medium grade weight 5.24kg/mtr.) B class including cost of all materials, labour charges, HOM of equipments and testing complete as per specifications.	Mtr	26.60	534.24	
Providing and fixing 6mm Bronze Multi wall poly carbonate sheet for Tubular structure. The work including cost of all materials, labour charges and hire charges of machineries for cutting welding grinding and erection equipments, complete as per specification.	Sqm	14.00	2521.74	

EXECUTIVE ENGINEER-4
KRIDL, BBMP DIVISON
BENGALURU-560 010

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	Providing and laying in position reinforced cement concrete of design mix M20 with OPC cement @ 27.20 kgs, with 12mm and down size graded granite metal coarseaggregates @ 0.5865 cum and line agregtes @ 0.391 cum, with superplastisiser @ 0.225 its machine mixed, well compacted for plain chajja of 8.5 cms. average thickness, upto ground floor level, including cost of all materials, labour, HOM of machinery, finishing, curing complete as per specifications.	Sqm	4.43	519.40	
	Providing and removing centering, shuttering, strutting, propping etc., for chajjas, corbels etc., including edges including cost of all materials, labour complete as per specification.	Sqm	4.43	278.78	
	Providing 18mm thick cement plaster in single coat with cement mortar 1:4, to brick masonry including rounding off corners wherever required smooth rendering, Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications.	Sqm	34.66	222.60	
	Providing 18mm thick cement plaster in single coat with cement mortar 1:4, to brick masonry including rounding off corners wherever required smooth rendering, Providing and removing scaffolding, including cost of materials, labour, curing complete as per specifications.	Sqm	34.66	222.60	
	Providing lime rendering for plastering to wall and ceiling, including cost of materials, labour, curing complete as per specifications.	Sqm	34.66	25.44	
	Providing and applying two coats with oil bound washable distemper of approved brand and shade on wall surface including priming coat with distemper primer after thoroughly brooming the surface free from mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications.	Sqm	34.66	69.96	
	Providing white washing to new wall surface in two coats with lime of approved quality, to give an even shade including cost of materials, labour, complete as per specifications.	Sqm	34.66	8.48	

EXECUTIVE ENGINEER-4
KRIDL, BBMP DIVISON
BENGALURU-560 010

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	Providing and applying enamel metal paint two coats (excluding priming coat) over new steel or other metal surface brushing to give an even shade after cleaning oil, grease, dirt and other foreign matter, including cost of materials, labour, complete as per specifications.	Sqm	35.28	83.74	
	Providing and fixing Special make glazed Vitrified tiles (Granomite finish) of approved make, quality and colour of size 600x600x10mm thick fixed on existing flooring with a special roffe adhesive for flooring and skirting etc., complete including providing spea` at required interval and removing stains etc., complete.	Sqm	26.10	1216.88	
	Providing and laying/fixing cement base precast pre polished cement concrete designer tiles 25mm thick conforming to IS 1237 heavy duty tiles for flooring treads of steps and landing laid on a bed of 12mm thick cement mortar 1:3 mis finished with flush pointing using white cement including cost of materials, including cutting griding the edge to hallfull round wherever required labour,curing complete as per specification.	Sqm	5.49	1116.18	
	Providing and fixing in position in cement concrete 1:3:6 steel glazed windows and ventilators side hung/top hung fully openable as per approved drawings using Z angles of 25x33x3mm, weighing 1.419 Kg/m both for outer and inner frames and central mullion section of size 25x46x3mm. weighing 2.28Kg/m duly providing T section 19x19x3mm weighing 0.839 kg/m for glazing of windows not more than 34 cms. c to c including providing and fixing 4mm. thick reeded glass with teakwood beading of required size, all steel sections should confirm to I.S 7452:1990, 4nos. of holdfasts of approved size, section should be cut to length welded and electrically grinded subdividing frames of unit shall be tenonned and revetted into the frames electrically. All the steel surface shall be thoroughly cleaned free of rust and painted with one coat of anti-corosive paint and finishing with two coats of ready mix paint of approved colour and make	Sqm	1.08	3811.76	

EXECUTIVE ENGINEER-4
KRIDL, BBMP DIVISON
BENGALURU-560 010

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	viding T.M.T(Bars Fe 500) Steel reinforcement r R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping, and for welding wherever required, tying with binding wire and anchoring to the adjoining membe wherever necessary complete as per design (laps and wastage shall not be measured and paid) cost of materials, labou', HOM of machinery complete as per specifications.	Tonn	0.50	68513.10	
	Providing and fixing pull and push type rolling shutters of approved make out of 18 guage, 75mm wide cold rolled steel laths of convex corrugation, with side guides and bottom rail, with interlocking arrangements for steel laths by means of alternate clips, suspension shaft with High tension coil type springs two number, mounted on specially designed pipe shaft, with bracket plates, guide channels, ball bearing arrangements, for inside & outside locking with push & pull operations complete including pulling hooks, 4Nos. handles with all fittings and accessories, painted with a coat of red lead paint (without top cover) cost of materials, labour, HOM of machinery complete as per specifications. Shutter size 3m x 2.8m. Specification	Tonn	7.50	2838.68	
	Cutting of road surface for pipeline trenches and disposing of the excavated stuff as directed including barricading, danger lighting etc., in the Cement concrete road.	Cum	1.80	604.20	
	Earthwork excavation for foundation of buildings, water supply, sanitary lines and eletrical conduits either in pits or in trenches 1.5m and above in width, in hard soil not exceeding 1.5m in depth including dressing the bottom and sides of pits and trenches, stacking the excavated soil clear from edges of excavation with lead upto 50m. after breaking of clods complete as per specifications.	Cum	1.80	283.02	
	Providing and fixing in trenches galvanised/mild steel tubes (medium grade) 40mm dia nominal bore with all fittings (earth work in trernches to be measured and paid for seperately) including cost of all materials, labour charges, HOM of equipments and testing complete as per specifications.	Mtr	10.00	399.62	

EXECUTIVE ENGINEER-4
KRIDL, BBMP DIVISON
BENGALURU-560 010

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Refilling available earth around pipe lines, cables in laye' not exceeding 20cms in depth, compacting each deposited layer by ramming after watering with lead upto 50m. and lift upto 1.5m. including cost of labour complete as per specifcations	Cum	1.80	76.32	
Providing and laying in position plain cement concrete of mix M7.5 with OPC cement @ 180kgs. with 40mm and down size graded granite metal coarseaggregates @ 0.85 cum and fine aggregtes @ 0.57 cum machine mixed, concrete laid in laye' not exceeding 15 cms. Thick, well compacted, in foundation and plinth, including cost of all materials, labour, HOM of machinery, curing complete as per specifications	Cum	0.60	4976.70	
Providing and laying in position plain cement concrete of mix M15 with cement @ 240kgs, with 20mm and down size graded granite metal coarseaggregates @ 0.878 cum and fine aggregtes @ 459 cum, machine mixed, concrete laid in laye' not exceeding 15 cms. Thick, well compacted, in foundation, plinth and cills, including cost of materials, labour, HOM of machinery, curing complete as per specifications.	Cum	0.60	5389.04	
Groove cutting in the wall supplying.....dia 2mm/2.5mm thick heavy gauge PVC Conduit Pipe with bends, metal junction boxes adhesive paste etc., and bracing U or J hooks and cement plastering up to the surface of the brick level and run with 18 SWG GI fish wire run through out conduit wherever necessary	Mtr	30.00	53.00	
Supplying of TPST with rewirable porcelain channels in SM enclosure 32amps	No	1.00	1868.00	
Supplying and fixing polished wood board made of not less than 15 mm thick plan on both sides with planks made out of more than two pieces and fixing the same to the wall using wooden plugs, screws etc., 20X20X2.5	No	1.00	302.00	
Supplying and wiring adopting loop system in existing PVC Conduit/casing caping using Copper PVC insulated multistrand 2x1.5 Sqmm copper wire with a 6Amps flush type SP control switch shall be fixed on the existing plastic sheet/gang box. The other end of the wires shall be terminated with sufficient loose length in a wood/PVC round block. complete for each outlet				
(a) Short Point upto 3Mtr form tapping point to outet via switch	No	1.00	176.00	

EXECUTIVE ENGINEER-4
KRIDL, BBMP DIVISON
BENGALURU-560 010

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	(b) Long Point above 6 Mtr. Upto 10 Mtr. From [illegible]ping point to out let via switch	No	1.00	379.50	
	Supplying 6 A flush/projected type socket and a 6Amps flush/projected type SP switch either surface/flush mounting in a existing gang box or a 4mm thick plastic sheet and fixing over a flush mounted wooden box and wiring using necessary capacity wires as required 6Amps3/5 Way	No	1.00	116.60	
	Wiring for lighting /power circuit using one of FRLS PVC insulated 1100V grade multis and Copper conductor single core wire in open or consealed system of wiring	No	1.00	42.10	
	Supplying and fixing PBBC backelite straight or slant batten holder &wiring 60w/230 Volts lamps	No	1.00	61.60	
	Supplying and fixing of LED type panel borad indicating lamp with required colour suitable for 220 v A.C. 50 Hz 12/24v D.C	No	1.00	430.00	
	Supplying & fixing of Porcelain fuse channel with cut out on existing wooden block & Wiring complete 32 amps	No	1.00	180.00	
	Supplying and fixing miniature circuit breakers on existing MCB disitribution boards using necessary fixing materials and wiring complete as required 5-32 amps TPN	No	1.00	1105.50	
	Supplying and fixing Class-A (Meadium duty) GI Pipe wall thickness not less then 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG Cable of 1.1 KV class 65mm	Mtr	9.00	585.00	
	Digging of trenches of 0.6mm x 0.50 Mtrs wide refilling the trench to the required ground level and consolidating etc,. Complete sutting road surfaces	Mtr	47.00	106.00	
	Supplying and laying of L.T.U.G Cable having aluminiumconductor PVC insulated shethed galvanised steel wire/ steel tape armoured cable with PVC outer sheathing 1.1 KV class 4 core 16 sqmm cable	Mtr	20.00	165.60	
	Labour Charges for laying of 1.1 KV Class UG Cable 6 Sqmm to 16 Sqmm	Mtr	20.00	10.80	
	Supplying and fixing of heay duty cable glands suitable for UG cable of 1.1KV class metal only 25MM dia	No	2.00	72.60	
	Supplying and fixing L.T. cast lorn pot heads suitable for 1.1. KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc., a) 16Sqmm	No	2.00	280.00	

EXECUTIVE ENGINEER-4
KRIDL, BBMP DIVISON
BENGALURU-560 010

Brahat Bangal[illegible] COMMISSIONER

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	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C cotouts and other equipments on the meter board using 40mm dia 2.90 thick GI pipe 2.5 mtr long buried in a pit... The pit should be filled with equal proprotion of salt and charcoal 150mm alround the pipe to complete depth. The connection from the to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and checkunts etc., the pipe shall have 16 through holes of 122mm dia	each	1.00	2727.00	
	Supplying and fixing and Wiring electronic 10 to 40amps 3 phase 4 wire Class 1 Accurency energy meter Group A	each	1.00	4532.00	
	Supplying decorative horizontal type street light fluorescent fitting weather and water proof complete with low loss open construction copper wound ferromagnetic ballast,starter,locking type brass contact holders with 1 No. of 4 feet 40 watts fluorescent tube completely wired for use on 230/250 volts. 50cycles AC supply with opal reeded Perspex cover at bottom complete fitting	each	1.00	1501.50	
	Supplying & fixing mm dia class A GI pipe bracket up to 2 mtrs long bent at suitable angle and fixing to this bracket 1x40/2x40 watts fluroscent tube street light fitting of all capacities of GI or CI or rail or RCC pole/ wall using suitable clamps. bolts. and nuts and wiring using suitable capacity wires complete	each	12.00	671.00	
	Providing Reverse Osmosis System to cover 200 Ltrs of high TDS water per hour	Sqm	1.00	860000.00	
	Flow Rate				
	Feed Water				
	Treated Water				
	Rejected Water				
	a)Raw water Feed pump with starter,Type-Horizontal ,Centrifugal. Make-Kirloskar/Beacon weir/Sumo / CNP(SS), Material of Construction-Cast Iron,Head-36 MWC. Motor-3.0HPthree phase.Starter-L&T Siemen make push botton type DOL Starter				
	b) sand Media filter,type-verticle,Floor Mounted,Make-pentair/structural/ION EXCHANGE(INDIA) LTD/Zeolite/Aquario,min.operating Pressure 2.0kg/cm2,Max.				

EXECUTIVE ENGINEER-4
KRIDL, BBMP DIVISON
BENGALURU-560 010

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	c) Activated carbon Filter type-Verticle,Floor mounted,Make-pentair/Structural/ION EXCHANGE(INDIA) LTD/Zeolite/Aquario,min.operating Pressure 2.0kg/cm2,Max. Operating Pressure -3.5kg/cm2, Treatment Flow Rate-6000liters/Hr,Type of valve size-Multiport,50NB,make-UKL/Initiative,Filtering Media -Gravel, Activated Carbon & pebbles					
	d) Micron Filter,Type -JUMBO,Material of construction of housing-poly propelene					
	e) High pressure pump,Type-verticle,multistage,Make-GRUNDFOS,MOTOR-7.5 HP 3Phase, Model-CRN series,Material of construction-SS316,starter-L&T/Seimens make push botton type DOL starter					
	f) Electrical Panel					
	G) Instrumentation					
	h) pH correction dosing System, Equipment Required-Electronic Dosing Pump with solution Tank, Make-Ion Exchange(1) Ltd.,/ASIA LMI/Zeolite,Material of construction -PP, Discharge @ max . Back Pressure-2.88 Lit/Hr@8Bar.Discharge@Nominal Back Pressure-3.12 Lit/Hr@4Bar,Frequency-100 Strokes / Min, Chemical to be dosed-PH Booster					
	Supplying and wiring adopting loop system in existing PVC Conduit / casing capping using copper PVC insulated multi strand 2x1.5Sqmm copper wire with a 6Amps flush type SP control switch shall be fixed on the existing plastic sheet/gang box, the other end of the wires shall be terminated with sufficient loose length in a wood/PVC round block. compelete for each outlet					
	a) Short point up to 3Mtr from tapping point to out let via switchEach point	No	2.00	175.00		
	b) Medium point above 3Mtr up to 6Mtr from tapping point to out let via switch (Each point)	No	2.00	175.00		
	Supplying 6 A flush/projected type socket and a 6Amps flush/projected type SP switch either surface/flush mounting in a existing gang box or a 4mm thick plastic sheet and fixing over a flush mounted wooden box and wiring using necessary capacity wires as required	No	4.00	91.00		

EXECUTIVE ENGINEER-4
KRIDL, BBMP DIVISON
BENGALURU-560 010

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	Supplying and flush mounting teak wooden box without front plank, made of not less than 12mm thick wood, after due groove cutting, necessary masonry patch work complete				
	a) 4"x4"x3"	No	4.00	44.00	
	b) 12"x12"x3"	No	12.00	98.00	
	c) 10"x7"x3"	No	12.00	68.00	
	Supplying 4mm thick plastic sheet with necessary nitches for fixing switches, regulators etc., and fixing on existing wooden or metal box using N.F. screws.	Sqcm	40000.00	0.22	
	Extra for groove cutting, plastring and colour washing for embedding PVC conduit/GI Pipe and Plastring finishing the wall upto wall surface complete upto 50mm conduit in brick in wall	Rmt	20.00	14.00	
	Supplying 20 mm dia 2mm thick heavy gauge PVC conduit pipe with suitable size bends, metal/PVC junction boxes adhesive pase etc., and running before cocreting the slab. The conduit should be tiled to the reinforcement rods by using binding wires and unused ways of junction boxes and plpe ends should be covered using PVC end enclosuers. Run with 18 SWG GI fish wire wherever necessary	Mtr	20.00	32.00	
	Supplying and fixing PBBC backelite straight or slant batten holder &wiring 60w/230 Volts lamps	No	2.00	60.00	
	Supplying decorative horizontal type street light fluorescent fitting weather and water proof complete with low loss open construction copper wound ferromagnetic ballast,starter,locking type brass contact holders with 1 No. of 4 feet 40 watts fluorescent tube completely wired for use on 230/250 volts. 50cycles AC supply with opal reeded Perspex cover at bottom complete fitting	No	4.00	400.00	
	Wiring for lighting/power circuit using one of PVC insulated 1100v grade, multistrand Copper conductor single core cable in open or concealed system of wiring.	Rmt	30.00	15.00	
	Supplying & fixing cash aluminium round or oblong pipe bulk head fitting with GI wire guard, glass cover with 60/100 watts 230V lamp as required	No	4.00	219.00	

EXECUTIVE ENGINEER-4
KRIDL, BBMP DIVISON
BENGALURU-560 010

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Supplying, fixing, wiring, earth electrode for ...grounding conduits, I.C. cutouts and other equipment's on the meter board using 40mm dia 2.90mm thick GI pipe 2.5 mtr long buried in a pit ... The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 through holes of 122 mm dia	No	1.00	2727.00	

Signature of Contractor

EXECUTIVE ENGINEER-4
KRIDL, BBMP DIVISON
BENGALURU-560 010

Executive Engineer
Dasarahalli Division

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